| Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy | | | | | | | | | | | Date: February 2016 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Appropriation/Budget Activity<br>1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)* | | | | | R-1 Program Element (Number/Name)<br>PE 0605215N *I (U)Mission Planning* | | | | | | | |
| **COST ($ in Millions)** | **Prior Years** | **FY 2015** | **FY 2016** | **FY 2017 Base** | **FY 2017 OCO** | **FY 2017 Total** | **FY 2018** | **FY 2019** | **FY 2020** | **FY 2021** | **Cost To Complete** | **Total Cost** |
| Total Program Element | 0.000 | 0.000 | 0.000 | 33.570 | - | 33.570 | 34.230 | 33.860 | 33.905 | 34.612 | Continuing | Continuing |
| 2213: *Mission Planning* | 0.000 | 0.000 | 0.000 | 21.779 | - | 21.779 | 21.771 | 21.673 | 21.539 | 21.988 | Continuing | Continuing |
| 2311: *Stores Planning and Weaponeering Module* | 0.000 | 0.000 | 0.000 | 11.153 | - | 11.153 | 11.788 | 11.502 | 11.667 | 11.911 | Continuing | Continuing |
| 2312: *Common Helicopters* | 0.000 | 0.000 | 0.000 | 0.638 | - | 0.638 | 0.671 | 0.685 | 0.699 | 0.713 | Continuing | Continuing |

**Note**

Prior to FY17, Mission Planning (PU 2213) was funded under PE 0604231N; Stores Planning and Weaponeering Module (PU 2311) and Common Helicopters (PU 2312) were funded under PE 0604215N.

**A. Mission Description and Budget Item Justification**

Mission Planning develops automated mission planning systems to support Naval Aviation.

Joint Mission Planning System (JMPS) is the designated automated mission planning system for the Navy, supporting over 40 T/M/S and expeditionary forces. JMPS-M enables weapon system employment by providing the information, automated tools, and decision aids needed to rapidly plan aircraft, weapon, or sensor missions, load mission data into aircraft and weapons, and conduct mission rehearsal and post-mission analysis. JMPS-E is a scalable, tailorable, mission planning and execution monitoring tool for Amphibious Squadron staffs.

Stores Planning and Weaponeering Module, also referred to as Weaponeering and Stores Planning (WASP), is an integrated software product that allows aircrew to determine the best combinations of weapons and delivery conditions to achieve the desired level of target damage, eliminate weapon delivery solutions that violate aircraft Type/Model/Series (T/M/S) specific safety-of-flight envelopes, and perform detailed weapons employment planning for F/A-18 and E/A-18G aircraft.

Common Helicopters focus on developing the unique planning requirements for helicopters. The unique and enhanced automated mission planning functionality requirements that must be developed and implemented for helicopters will be developed and then implemented into Joint Mission Planning System (JMPS).

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under MISSION PLANNING because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production decision.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Navy | | | | | Date: February 2016 |
|---|---|---|---|---|---|
| Appropriation/Budget Activity<br>1319: *Research, Development, Test & Evaluation, Navy I* BA 5: *System Development & Demonstration (SDD)* | | | R-1 Program Element (Number/Name)<br>PE 0605215N *I (U)Mission Planning* | | |
| **B. Program Change Summary ($ in Millions)** | **FY 2015** | **FY 2016** | **FY 2017 Base** | **FY 2017 OCO** | **FY 2017 Total** |
| Previous President's Budget | 0.000 | 0.000 | 0.000 | - | 0.000 |
| Current President's Budget | 0.000 | 0.000 | 33.570 | - | 33.570 |
| Total Adjustments | 0.000 | 0.000 | 33.570 | - | 33.570 |
| • Congressional General Reductions | - | - | | | |
| • Congressional Directed Reductions | - | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | - | - | | | |
| • Program Adjustments | 0.000 | 0.000 | 38.277 | - | 38.277 |
| • Rate/Misc Adjustments | 0.000 | 0.000 | -4.707 | - | -4.707 |

**Change Summary Explanation**

Decrease in (U) Mission Planning by $1.41M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

Technical: N/A

Schedule:

2213:
Prior to FY17, schedule for the Joint Mission Planning Systems (JMPS) profile is under PE 0604231N.

2311:
Prior to FY17, schedule for Stores Planning and Weaponeering Module profile is under PE 0604215N.

2312:
Prior to FY17, schedule for the Common Helicopter profile is under PE 0604215N.

| Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy | | | | | | | | | | | Date: February 2016 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Appropriation/Budget Activity<br>1319 / 5 | | | | | R-1 Program Element (Number/Name)<br>PE 0605215N / *(U)Mission Planning* | | | | Project (Number/Name)<br>2213 / *Mission Planning* | | | |
| **COST ($ in Millions)** | **Prior Years** | **FY 2015** | **FY 2016** | **FY 2017 Base** | **FY 2017 OCO** | **FY 2017 Total** | **FY 2018** | **FY 2019** | **FY 2020** | **FY 2021** | **Cost To Complete** | **Total Cost** |
| 2213: *Mission Planning* | 0.000 | 0.000 | 0.000 | 21.779 | - | 21.779 | 21.771 | 21.673 | 21.539 | 21.988 | Continuing | Continuing |
| Quantity of RDT&E Articles | | - | - | - | - | - | - | - | - | - | | |

**Note**

Prior to FY17, Mission Planning (PU 2213) was budgeted under Tactical Command System PE 0604231N.

**A. Mission Description and Budget Item Justification**

Joint Mission Planning System (JMPS) is the designated automated mission planning system for the Navy, supporting over 40 T/M/S. Future JMPS platforms include: MQ-4C (Triton), P-8 and CH-53K. JMPS enables weapon system employment by providing the information, automated tools, and decision aids needed to rapidly plan aircraft, weapon, or sensor missions, load mission data into aircraft and weapons, and conduct post-mission analysis. JMPS is a mission critical system which is a co-development effort between the United States Navy (USN) and United States Air Force (USAF). Common requirements are identified and capabilities are developed and prioritized in an evolutionary approach. An individual JMPS Mission Planning Environment (MPE) is a combination of the JMPS framework, common components, unique planning components (UPCs), federated applications, and the necessary system hardware required to satisfy mission planning objectives. Most Tactical Naval Aviation platforms are dependent solely on JMPS to plan precision guided munitions, sensor systems, tactical data links, secure voice communications, and basic Safety of Flight functions. The JMPS Increment 4 will support mission planning for over 40 T/M/S. Increment 4, which includes 64-bit, delivers JMPS FW 1.5 and will transition JMPS from Windows 7/32-bit Operating System (OS) to Windows 10/64-bit OS. Transition to 64-bit allows for memory space expansion to accommodate future Microsoft Operating Systems, emerging technologies, and critical Cybersecurity updates. Funding profile includes JMPS baseline efforts for all existing T/M/S on Windows 7/32-bit framework while concurrently re-architecting to a 64-bit framework. Increment 4 development requires software conversion and refactoring to address memory limitations and system errors resulting in JMPS computer crashes. The transition from the current 32-bit architecture (4GB RAM) to a 64-bit architecture (192GB RAM) provides additional memory access, increased planning efficiencies; creating a increased stability in the architecture resulting in fewer system crashes. Delaying JMPS 64-bit transition (Increment 4) will allow existing system crashes to continue, and will decrease system stability in the future due to platform capability enhancements that require increased amounts of data and processing power.

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total |
|---|---|---|---|---|---|
| ***Title:*** Joint Mission Planning System Expeditionary (JMPS-E) | 0.000 | 0.000 | 0.908 | 0.000 | 0.908 |
| ***Articles:*** | - | - | - | - | - |
| ***Description:*** JMPS Expeditionary (JMPS-E): The goal of JMPS-E is to produce a scalable, tailorable, mission planning and execution monitoring tool for Amphibious Squadron staffs. The primary focus of this system is to provide an automated capability to assist planners with mission analysis, course of action development and automated creation of doctrinal orders based on planning data in the system. Current expeditionary planning is done manually on paper charts. JMPS-E provides a digital map enabling better response times to changing plans, easier distribution of planning artifacts and a reduction in human error during the planning process. The | | | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2213 / *Mission Planning* |

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total |
|---|---|---|---|---|---|
| variety and geographically separated nature of forces involved with Ship to Shore Maneuver amplifies the need for web-based technologies to enable collaborative planning, improve overall situational awareness and enable the monitoring of mission execution from different locations. The primary outputs are tasking orders, route plans, battlespace geometries and decision briefs. The system will also incorporate modeling and simulation tools to rehearse and deconflict mission plans.<br><br>***FY 2015 Accomplishments:***<br>N/A<br><br>***FY 2016 Plans:***<br>N/A<br><br>***FY 2017 Base Plans:***<br>Complete testing of JMPS- MPE Version 2.1. Development, integration and testing of JMPS-E MPE Version 3.0<br><br>***FY 2017 OCO Plans:***<br>N/A | | | | | |
| ***Title:*** Mission Planning Environment Program Mgmt, Integration, and Test<br>***Articles:***<br><br>***Description:*** Mission Planning Environment (MPE) Integration and Test efforts support the Navy's developmental testing/operational testing, integration and system of system testing for MPE fielding, integrating, testing, and managing the Electronic Kneeboard (EKB) efforts. Life-cycle management efforts consist of integration of components provided by various developers into a platform-centric MPE and testing of the integrated MPE. MPE integration and testing results in a consistent and repeatable system configuration that enables stability and reliability.<br><br>***FY 2015 Accomplishments:***<br>N/A<br><br>***FY 2016 Plans:***<br>N/A<br><br>***FY 2017 Base Plans:***<br>Continue integration and testing, project management and systems engineering for current MPEs as well as supporting future releases of JMPS and Electronic Kneeboard (EKB) software to the fleet.<br><br>***FY 2017 OCO Plans:*** | 0.000<br>- | 0.000<br>- | 11.471<br>- | 0.000<br>- | 11.471<br>- |

| Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2213 / *Mission Planning* |

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total |
|---|---|---|---|---|---|
| N/A | | | | | |
| ***Title:*** JMPS Framework (FW) and Common Components (CC) Development<br>***Articles:*** | 0.000<br>- | 0.000<br>- | 9.400<br>- | 0.000<br>- | 9.400<br>- |
| ***Description:*** Continue integration of JMPS 64-bit FW Version 1.3.5 which incorporates Windows OS 7 and provides additional capabilities for all naval aircraft to include air drop, air refueling and enhanced installation. Funding for FW will be used to support system engineering processes, management interface controls, software architectural analysis, requirements management and a centralized website for Mission Planning Environment (MPE) developers. As platform(s) requirements emerge for new and enhanced mission planning capabilities, the demand for more complex integrated applications and software products increases. Without this planned transition to a 64-Bit architecture, the volume of integrated mission planning capability for the fleet will be limited. Common Components software updates augment core mission planning capabilities across multiple T/M/S.<br><br>***FY 2015 Accomplishments:***<br>N/A<br><br>***FY 2016 Plans:***<br>N/A<br><br>***FY 2017 Base Plans:***<br>Continue implementation of the Increment-4 JMPS Framework Core 64-bit development transition activities. Major events include the development of Cybersecurity safeguards addressing IA mandates, development of additional JMPS help features, and code conversion for the JMPS Core Framework (Basic Flight Planning Capabilities) and Common Components for MPE/UPCs including significant efforts for the F/A-18 A-F and E/A-18G platforms. In addition, efforts include initiation of 64-bit transition development for JMPS Common Components used by multiple platforms. The transition of the JMPS Common Components are aligned to meet platform(s) requirements for new and enhanced mission planning capability in a 64-bit environment. The 64-bit transition is required to address system performance issues (RAM) with the fielded Mission Planning Environment (MPE); thus reducing system crashes while improving mission planning performance for the fleet.<br><br>***FY 2017 OCO Plans:***<br>N/A | | | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 21.779 | 0.000 | 21.779 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

| Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2213 / *Mission Planning* |

**C. Other Program Funding Summary ($ in Millions)**

**Remarks**

**D. Acquisition Strategy**

The initial Joint Mission Planning System (JMPS) development effort was a phased evolutionary approach. Multiple contracts were awarded during initial development. During the down-select process, one contractor was selected to develop the JMPS architecture work and Version 1.0 basic flight planning components. Additional phases focused on strike planning requirements (i.e., support Precision Guided Missions and other tactical data intensive missions) in order to migrate platforms from legacy mission planning systems to JMPS. The USAF continued development of JMPS Framework Versions 1.3 and 1.5 and owns the Mission Planning Enterprise Contract, which is used for JMPS Framework software development. The USN integration and fielding strategy supports a Mission Planning Environment (MPE) focus, where the JMPS Framework and other software components are integrated, tested, and fielded by T/M/S. The USN Increment 4, and beyond, will address increased Mission Planning system capabilities required by the 21st Century Warfighter and modernizes the architecture of JMPS to address technological obsolescence. As platforms plan their migration to newer versions of JMPS, the acquisition strategy, plan, and program baseline will be updated in order to divest legacy mission planning systems, meet the evolving requirements for integrated mission planning, and lower total life cycle cost.

**E. Performance Metrics**

Average time to plan a flight: Threshold value is < 1 hour average time to plan a flight that includes a Military Training Route (MTR), routing to and from the MTR, kneeboard card production, Instrument Flight Rules (IFR) flight planning materials and a Data Transfer Device (DTD) Load. Objective value is < 30 minutes average time to plan a flight that includes a MTR, routing to and from the MTR, kneeboard card production, IFR flight planning materials and a DTD Load.

Interoperability: Threshold value is 100% of top level Interoperability Exchange Requirements (IERs) designated critical will be satisfied.
Objective value is 100% of top level IERs will be satisfied.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2213 / *Mission Planning* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2015 Cost | FY 2015 Award Date | FY 2016 Cost | FY 2016 Award Date | FY 2017 Base Cost | FY 2017 Base Award Date | FY 2017 OCO Cost | FY 2017 OCO Award Date | FY 2017 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary Software Development/JMPS Expeditionary | C/CPFF | various : various | 0.000 | 0.000 | | 0.000 | | 0.400 | Feb 2017 | - | | 0.400 | Continuing | Continuing | Continuing |
| Primary Software Development, Inc 4 | C/CPFF | Northrop Grumman : Long Beach, CA | 0.000 | 0.000 | | 0.000 | | 4.500 | Feb 2017 | - | | 4.500 | Continuing | Continuing | Continuing |
| Primary Software Development MPE | C/CPFF | Leidos : Orlando, FL | 0.000 | 0.000 | | 0.000 | | 1.800 | Feb 2017 | - | | 1.800 | Continuing | Continuing | Continuing |
| Primary Software Development/(Human Factors) | C/CPFF | Georgia Technical Research Institute (GTRI) : Atlanta, GA | 0.000 | 0.000 | | 0.000 | | 1.500 | Mar 2017 | - | | 1.500 | Continuing | Continuing | Continuing |
| Primary Software Development Increment 4 | C/CPFF | TBD : TBD | 0.000 | 0.000 | | 0.000 | | 1.600 | Jan 2017 | - | | 1.600 | Continuing | Continuing | Continuing |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 9.800 | | - | | 9.800 | - | - | - |

**Remarks**

The FY17 Increment 4 Primary Software Development effort is a competitive NAVAIR Multiple Award Contract (MAC) award therefore the performing activity and location are currently TBD to support a competitive contracting strategy.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2015 Cost | FY 2015 Award Date | FY 2016 Cost | FY 2016 Award Date | FY 2017 Base Cost | FY 2017 Base Award Date | FY 2017 OCO Cost | FY 2017 OCO Award Date | FY 2017 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Integrated Logistics Support | WR | NAWCWD : Point Mugu, CA | 0.000 | 0.000 | | 0.000 | | 0.208 | Nov 2016 | - | | 0.208 | Continuing | Continuing | Continuing |
| Systems Eng & Integration | WR | NAWCWD : Point Mugu, CA | 0.000 | 0.000 | | 0.000 | | 2.487 | Nov 2016 | - | | 2.487 | Continuing | Continuing | Continuing |
| Systems Engineering | WR | NAWCAD : Patuxent River, MD | 0.000 | 0.000 | | 0.000 | | 1.000 | Nov 2016 | - | | 1.000 | Continuing | Continuing | Continuing |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 3.695 | | - | | 3.695 | - | - | - |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2213 / *Mission Planning* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2015 Cost | FY 2015 Award Date | FY 2016 Cost | FY 2016 Award Date | FY 2017 Base Cost | FY 2017 Base Award Date | FY 2017 OCO Cost | FY 2017 OCO Award Date | FY 2017 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Test & Evaluation | WR | NAWCWD : Point Mugu, CA | 0.000 | 0.000 | | 0.000 | | 5.860 | Nov 2016 | - | | 5.860 | Continuing | Continuing | Continuing |
| Test & Evaluation | WR | COMOPTEVFOR : Norfolk, VA | 0.000 | 0.000 | | 0.000 | | 0.700 | Jan 2017 | - | | 0.700 | Continuing | Continuing | Continuing |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 6.560 | | - | | 6.560 | - | - | - |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2015 Cost | FY 2015 Award Date | FY 2016 Cost | FY 2016 Award Date | FY 2017 Base Cost | FY 2017 Base Award Date | FY 2017 OCO Cost | FY 2017 OCO Award Date | FY 2017 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Support and Travel | WR | NAWCAD : Patuxtent River, MD | 0.000 | 0.000 | | 0.000 | | 1.400 | Nov 2016 | - | | 1.400 | Continuing | Continuing | Continuing |
| Program Management Support | C/CPFF | TBD : TBD | 0.000 | 0.000 | | 0.000 | | 0.324 | Jan 2017 | - | | 0.324 | 0.000 | 0.324 | - |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 1.724 | | - | | 1.724 | - | - | - |

**Remarks**

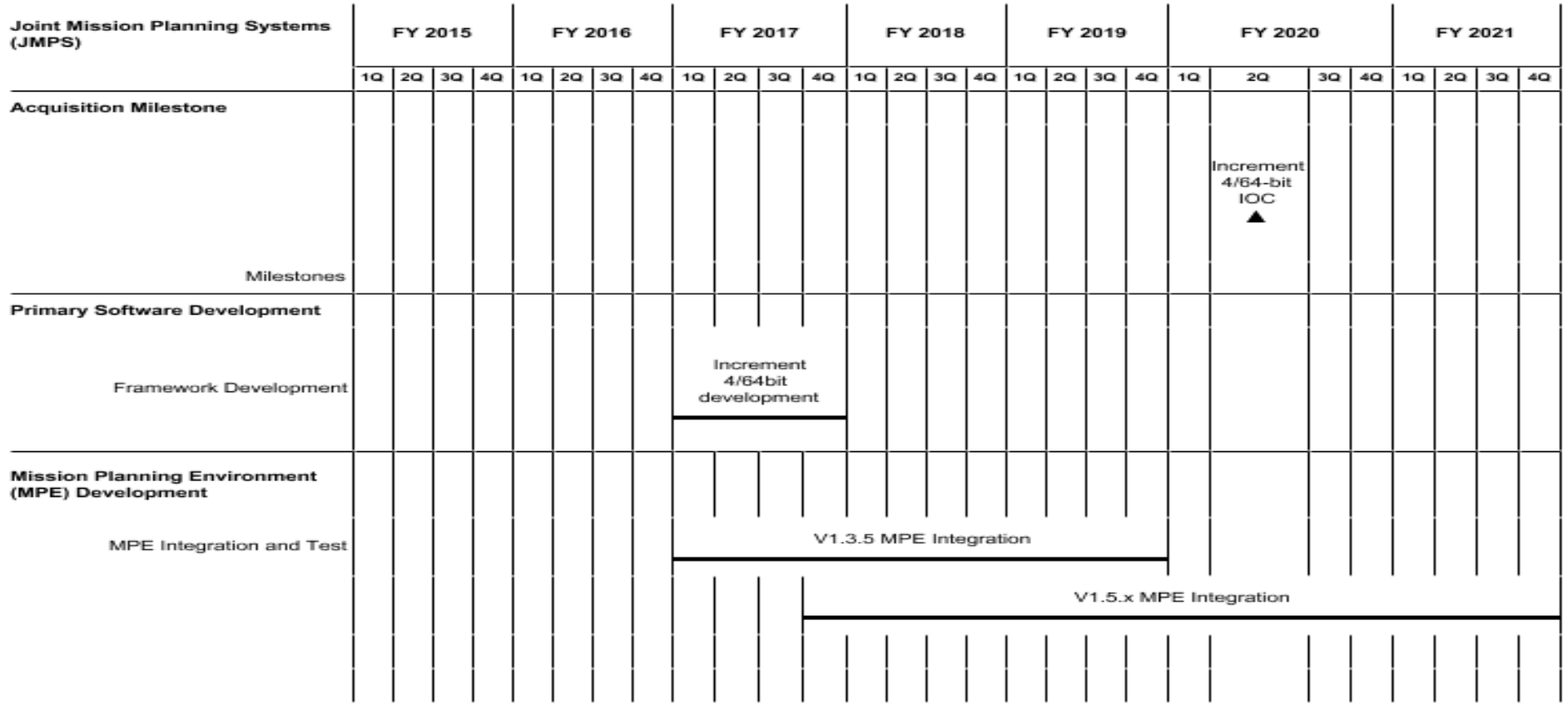
The FY17 Program Management Support contract will be a competitive award in FY17 so the performing activity and location are currently TBD due to the competitive contracting strategy.

| | Prior Years | FY 2015 | | FY 2016 | | FY 2017 Base | | FY 2017 OCO | | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 0.000 | | 21.779 | | - | | 21.779 | - | - | - |

**Remarks**

Prior to FY17, the Mission Planning PU 2213 was funded under PE 0604231N

| Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2213 / *Mission Planning* |




*2017DON - 0605215N - 2213*

| Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2213 / *Mission Planning* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events by Sub Project** | **Quarter** | **Year** | **Quarter** | **Year** |
| ***Joint Mission Planning Systems (JMPS)*** | | | | |
| Acquisition Milestone: JMPS FW Increment 4/ 64 Bit Initial Operational Capability (IOC) | 2 | 2020 | 2 | 2020 |
| Primary Software Development: Framework Development: JMPS FW Increment 4/ 64 Bit Architecture Development | 1 | 2017 | 4 | 2017 |
| Mission Planning Environment (MPE) Development: MPE Integration and Test: JMPS 64-bit Mission-Planning Environment (MPE) Integration/Validation | 1 | 2017 | 4 | 2019 |
| Mission Planning Environment (MPE) Development: MPE Integration and Test: JMPS FW 64 Bit Integration/Validation | 4 | 2017 | 4 | 2021 |

| Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy | | | Date: February 2016 |
|---|---|---|---|
| Appropriation/Budget Activity<br>1319 / 5 | R-1 Program Element (Number/Name)<br>PE 0605215N / *(U)Mission Planning* | Project (Number/Name)<br>2311 / *Stores Planning and Weaponeering Module* | |

| COST ($ in Millions) | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2311: *Stores Planning and Weaponeering Module* | 0.000 | 0.000 | 0.000 | 11.153 | - | 11.153 | 11.788 | 11.502 | 11.667 | 11.911 | Continuing | Continuing |
| Quantity of RDT&E Articles | | - | - | - | - | - | - | - | - | - | | |

**Note**

Prior to FY17, Stores Planning and Weaponeering Module (PU 2311) was budgeted under Standards Development (PE 0604215N).

**A. Mission Description and Budget Item Justification**

The Weaponeering and Stores Planning (WASP) components, are integrated software products that allow aircrew to determine the best combinations of weapons and delivery conditions to achieve the desired level of target damage, eliminate weapon delivery solutions that violate aircraft Type/Model/Series (T/M/S) specific safety-of-flight envelopes, and perform detailed weapons employment planning. WASP is approved by Air Warfare Division (N98) as a flight clearance implementation system for the F/A-18 A, A+, B, C, D, D (RC), E, F, EA-18G; potential support for other platforms, to include F-35. WASP components will alert pilots if their planned weapon release conditions meet flight clearance limits, will result in bomb-to-bomb collisions, bomb-to-aircraft collisions, aircraft overstress, or excessive risk of aircraft loss/damage in the event of fuze early bursts. Weapon employment planning is fundamental to the Joint Capability Area of Force Application and joint mission areas of Strike and Amphibious Warfare. WASP provides the Navy and Marine Corp with weaponeering capabilities that are critical requirements for Interdiction, Armed Reconnaissance and Close Air Support mission planning. Therefore, WASP product availability is critical to successful employment of the Joint Mission Planning System (JMPS) for the F/A-18 A-F and EA-18G. The WASP product encompasses a multitude of Government Furnished Information software components and tools (aircraft target maneuver simulations, weapon flyout models, target probability of damage calculators). WASP products will require updates as emergent requirements for new aircraft T/M/S, stores and weapons are approved, new flight clearances and flight restrictions are issued by Naval Air Systems Command Headquarters (NAVAIRSYSCOM), and developing WASP as a software application.

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total |
|---|---|---|---|---|---|
| ***Title:*** Product Development | 0.000 | 0.000 | 5.876 | 0.000 | 5.876 |
| ***Articles:*** | - | - | - | - | - |
| ***Description:*** Includes associated system engineering design, development, installation, integration and software development for Weaponeering and Stores Planning (WASP) components v3.x and v4.x to support F/A-18 A-F and EA-18G. Naval Air Warfare Center Weapons Division (NAWCWD), Joint Software Support Activity (JSSA) will develop and maintain the AV-8B Weapons and Release Planning (WARP) tool. Define requirements to integrate WASP components into the Joint Mission Planning System (JMPS). Provide domain engineering support for weapons separation, aircraft loads, flutter, fuzing and safe escape for application to WASP. Provide analysis of new requirements, allocation of requirements, design oversight, and life cycle management of | | | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2311 / *Stores Planning and Weaponeering Module* |

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total |
|---|---|---|---|---|---|
| the WASP program. Develop new aircraft configuration, aircraft loading, weapon optimization, store release and delivery planning components for F/A-18 A-F and EA-18G new flight clearances and flight restrictions issued by NAVAIRSYSCOM. Provide configuration management, system administration, quality assurance, documentation, metrics and software risk management for WASP. Acquire, integrate and modify numerous Government Furnished Information (GFI) software components and tools (aircraft target maneuver simulations, weapon flyout models, target probability of damage calculators, etc.) that are used for the WASP software development. Integrate WASP with Joint Standoff Weapon/Joint Direct Attack Munitions/Standoff Land-Attack Missile - Expanded Response and other weapons mission planning systems as required.<br><br>***FY 2015 Accomplishments:***<br>N/A<br><br>***FY 2016 Plans:***<br>N/A<br><br>***FY 2017 Base Plans:***<br>Continue WASP v4.0 development and release multiple database updates.<br><br>***FY 2017 OCO Plans:***<br>N/A | | | | | |
| ***Title:*** Test and Evaluation (T&E)<br>***Articles:***<br><br>***Description:*** Provide test and evaluation for unit and system level testing; functional qualification testing; safety of flight certification testing; integration and standards compliance testing for Weaponeering and Stores Planning (WASP) versions v3.x and v4.x. Provide Joint Mission Planning System Mission Planning Environment Integration test support. Provide testing and test support to ensure all (to include internally developed software, externally developed GFI) components comply with Department of Navy (DoN) and Department of Defense (DoD) software mandates and directives. These include Integrated Shipboard Network System IT-21, DoD Information Assurance Certification and Accreditation Process, Navy Marine Corps Intranet (NMCI) and DoD Information Technology Portfolio Repository. All Fleet released software must comply with DoN and DoD software directives or will not be allowed to run on ship Local Area Networks or NMCI.<br><br>***FY 2015 Accomplishments:*** | 0.000<br>- | 0.000<br>- | 2.266<br>- | 0.000<br>- | 2.266<br>- |

| Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2311 / *Stores Planning and Weaponeering Module* |

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total |
|---|---|---|---|---|---|
| N/A<br>***FY 2016 Plans:***<br>N/A<br>***FY 2017 Base Plans:***<br>Complete test and evaluation of WASP major v3.3 and release to the Fleet. Begin testing of WASP major v4.0. Complete test and evaluation of multiple database updates.<br>***FY 2017 OCO Plans:***<br>N/A | | | | | |
| ***Title:*** Program Management/Systems Engineering<br>***Articles:***<br>***Description:*** Provide program management and systems engineering support, which includes requirements definition and analysis, compliance with Naval Air Systems Command systems engineering technical review processes, acquisition documentation development, cost, schedule and performance management, and compliance with external directives. Provide travel for government personnel.<br>***FY 2015 Accomplishments:***<br>N/A<br>***FY 2016 Plans:***<br>N/A<br>***FY 2017 Base Plans:***<br>Continue project management and systems engineering support to the WASP for future software releases to the fleet. Additional support will be required for multiple database releases.<br>***FY 2017 OCO Plans:***<br>N/A | 0.000<br>- | 0.000<br>- | 3.011<br>- | 0.000<br>- | 3.011<br>- |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 11.153 | 0.000 | 11.153 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

| Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2311 / *Stores Planning and Weaponeering Module* |

**C. Other Program Funding Summary ($ in Millions)**

**Remarks**

**D. Acquisition Strategy**

Weaponeering and Stores Planning (WASP) products, delivered annually, were developed in-house by NAVAIR consisting of Naval Air Warfare Center Aircraft Division and Naval Air Warfare Center Weapons Division engineers and support contractors. The team has now migrated to a smaller government team that provides functional expertise in aircraft safety-of-flight (air-vehicle stores compatibility, weapons separation, aircraft aerodynamic flutter, ground/flight loads, authorized fuze arm times, aircraft safe escape), guided weapons employment and weapons effects against targets, with the majority of the software development conducted by various contractors. The Government, engineering, test, and support teams (test facilities, functional qualification testing and certification/accreditation test) are supplemented with contractor labor.

**E. Performance Metrics**

Average time to plan a flight: Threshold value is < 1 hour average time to plan a flight that includes full aircraft loadout and weapons delivery safe escape planning. Objective value is < 15 minutes average time to plan a flight that includes full aircraft loadout and weapons delivery safe escape planning. End product is a pilot's z-diagram knee board card.

Interoperability: Threshold value is 100% stand alone value.
Objective value is 100% stand alone value.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2311 / *Stores Planning and Weaponeering Module* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2015 Cost | FY 2015 Award Date | FY 2016 Cost | FY 2016 Award Date | FY 2017 Base Cost | FY 2017 Base Award Date | FY 2017 OCO Cost | FY 2017 OCO Award Date | FY 2017 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product Development | WR | Naval Air Warfare Center Aircraft Division NAWCAD : Patuxent River, MD | 0.000 | 0.000 | | 0.000 | | 0.177 | Nov 2016 | - | | 0.177 | Continuing | Continuing | Continuing |
| Product Development | WR | Air Force Seek Eagle : Hill Air Force Base, UT | 0.000 | 0.000 | | 0.000 | | 0.083 | Mar 2017 | - | | 0.083 | Continuing | Continuing | Continuing |
| Primary Software Development | C/CPFF | DCS Corp : Alexandria, VA | 0.000 | 0.000 | | 0.000 | | 1.721 | Feb 2017 | - | | 1.721 | 0.000 | 1.721 | 1.721 |
| Product Development | C/CPFF | TBD : TBD | 0.000 | 0.000 | | 0.000 | | 3.895 | Mar 2017 | - | | 3.895 | Continuing | Continuing | Continuing |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 5.876 | | - | | 5.876 | - | - | - |

**Remarks**

The FY17 Product Development contract will be a competitive award in FY17 so the performing activity and location are currently TBD due to the competitive contracting strategy.

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2015 Cost | FY 2015 Award Date | FY 2016 Cost | FY 2016 Award Date | FY 2017 Base Cost | FY 2017 Base Award Date | FY 2017 OCO Cost | FY 2017 OCO Award Date | FY 2017 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Test & Evaluation (Gov't) | WR | NAWCAD : Patuxent River, MD | 0.000 | 0.000 | | 0.000 | | 1.142 | Nov 2016 | - | | 1.142 | Continuing | Continuing | Continuing |
| Test & Evaluation (Contractor) | C/CPFF | ManTech : Fairfax, VA | 0.000 | 0.000 | | 0.000 | | 1.124 | Mar 2017 | - | | 1.124 | 0.000 | 1.124 | 1.124 |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 2.266 | | - | | 2.266 | - | - | - |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2015 Cost | FY 2015 Award Date | FY 2016 Cost | FY 2016 Award Date | FY 2017 Base Cost | FY 2017 Base Award Date | FY 2017 OCO Cost | FY 2017 OCO Award Date | FY 2017 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System Engineering and Program Support | WR | NAWCAD : Patuxent River, MD | 0.000 | 0.000 | | 0.000 | | 1.100 | Nov 2016 | - | | 1.100 | Continuing | Continuing | Continuing |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2311 / *Stores Planning and Weaponeering Module* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2015 Cost | FY 2015 Award Date | FY 2016 Cost | FY 2016 Award Date | FY 2017 Base Cost | FY 2017 Base Award Date | FY 2017 OCO Cost | FY 2017 OCO Award Date | FY 2017 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Support | C/CPFF | TBD : TBD | 0.000 | 0.000 | | 0.000 | | 0.441 | Jan 2017 | - | | 0.441 | 0.000 | 0.441 | 0.441 |
| Government Engineering Support: Guided Weapons | WR | Naval Air Warfare Center Weapons Division NAWCWD : China Lake, CA | 0.000 | 0.000 | | 0.000 | | 0.023 | Jan 2017 | - | | 0.023 | Continuing | Continuing | Continuing |
| Systems Engineering Support | C/CPFF | Wyle : Huntsville, AL | 0.000 | 0.000 | | 0.000 | | 1.357 | Jan 2017 | - | | 1.357 | 0.000 | 1.357 | 1.357 |
| Govt Engineering Support: Mission Planning Environment Integration | WR | NAWCWD : Point Mugu, CA | 0.000 | 0.000 | | 0.000 | | 0.080 | Nov 2016 | - | | 0.080 | Continuing | Continuing | Continuing |
| Travel | Various | NAVAIR : Patuxent River, MD | 0.000 | 0.000 | | 0.000 | | 0.010 | Nov 2016 | - | | 0.010 | Continuing | Continuing | Continuing |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 3.011 | | - | | 3.011 | - | - | - |

**Remarks**

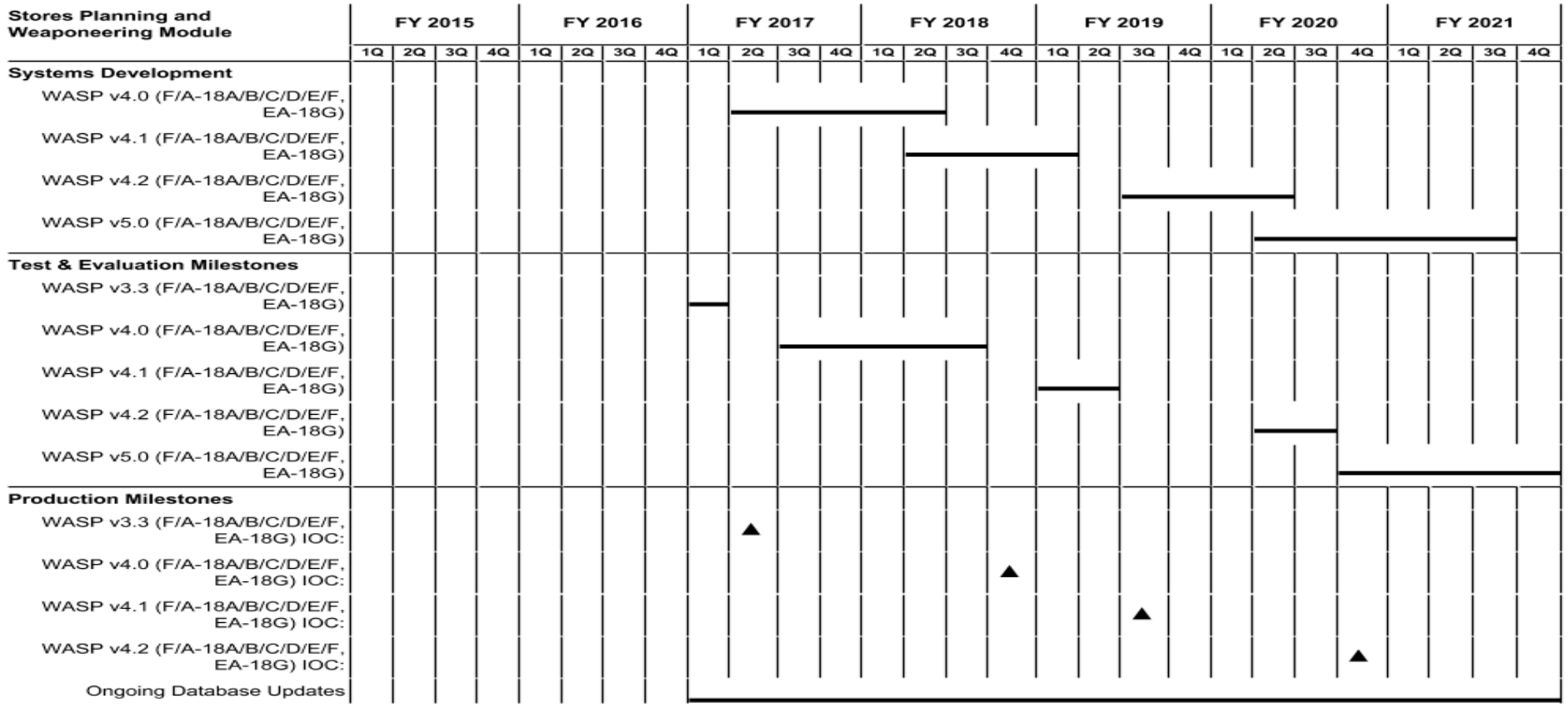
The FY17 Program Management Support contract will be a competitive award in FY17 so the performing activity and location are currently TBD due to the competitive contracting strategy.

| | Prior Years | FY 2015 | | FY 2016 | | FY 2017 Base | | FY 2017 OCO | | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 0.000 | | 11.153 | | - | | 11.153 | - | - | - |

**Remarks**

Prior to FY17, PU 2311 was budgeted under PE 0604215N.

| Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2311 / *Stores Planning and Weaponeering Module* |




*2017PB - 0605215N - 2311*

| Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2311 / *Stores Planning and Weaponeering Module* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events by Sub Project** | **Quarter** | **Year** | **Quarter** | **Year** |
| ***Stores Planning and Weaponeering Module*** | | | | |
| Systems Development: WASP v4.0 (F/A-18A/B/C/D/E/F, EA-18G): | 2 | 2017 | 2 | 2018 |
| Systems Development: WASP v4.1 (F/A-18A/B/C/D/E/F, EA-18G): | 2 | 2018 | 1 | 2019 |
| Systems Development: WASP v4.2 (F/A-18A/B/C/D/E/F, EA-18G): | 3 | 2019 | 2 | 2020 |
| Systems Development: WASP v5.0 (F/A-18A/B/C/D/E/F, EA-18G): | 2 | 2020 | 3 | 2021 |
| Test & Evaluation Milestones: WASP v3.3 (F/A-18A/B/C/D/E/F, EA-18G): | 1 | 2017 | 1 | 2017 |
| Test & Evaluation Milestones: WASP v4.0 (F/A-18A/B/C/D/E/F, EA-18G): | 3 | 2017 | 3 | 2018 |
| Test & Evaluation Milestones: WASP v4.1 (F/A-18A/B/C/D/E/F, EA-18G): | 1 | 2019 | 2 | 2019 |
| Test & Evaluation Milestones: WASP v4.2 (F/A-18A/B/C/D/E/F, EA-18G): | 2 | 2020 | 3 | 2020 |
| Test & Evaluation Milestones: WASP v5.0 (F/A-18A/B/C/D/E/F, EA-18G): | 4 | 2020 | 4 | 2021 |
| Production Milestones: WASP v3.3 (F/A-18A/B/C/D/E/F, EA-18G) IOC:: | 2 | 2017 | 2 | 2017 |
| Production Milestones: WASP v4.0 (F/A-18A/B/C/D/E/F, EA-18G) IOC:: | 4 | 2018 | 4 | 2018 |
| Production Milestones: WASP v4.1 (F/A-18A/B/C/D/E/F, EA-18G) IOC:: | 3 | 2019 | 3 | 2019 |
| Production Milestones: WASP v4.2 (F/A-18A/B/C/D/E/F, EA-18G) IOC:: | 4 | 2020 | 4 | 2020 |
| Production Milestones: Ongoing Database Updates: | 1 | 2017 | 4 | 2021 |

| Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy | | | Date: February 2016 |
|---|---|---|---|
| Appropriation/Budget Activity<br>1319 / 5 | R-1 Program Element (Number/Name)<br>PE 0605215N / *(U)Mission Planning* | Project (Number/Name)<br>2312 / *Common Helicopters* | |

| COST ($ in Millions) | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2312: *Common Helicopters* | 0.000 | 0.000 | 0.000 | 0.638 | - | 0.638 | 0.671 | 0.685 | 0.699 | 0.713 | Continuing | Continuing |
| Quantity of RDT&E Articles | | - | - | - | - | - | - | - | - | - | | |

**Note**

Prior to FY17, Common Helicopters (PU 2312) was budgeted under Standards Development (PE 0604215N).

**A. Mission Description and Budget Item Justification**

Automated mission planning systems to date have focused on developing planning capabilities for fixed-wing aircraft, while the unique planning requirements for helicopters have not been fully addressed. The unique and enhanced automated mission planning requirements that must be developed and implemented for helicopters include: data loading, an enhanced route editor (serpentine routing, hover), manipulation of higher fidelity (smaller scale) maps and imagery, enhanced performance tools (performance in and out of ground effect, performance degradation due to atmospheric conditions & elevation), and enhanced fidelity of landing zone, target zone, and threat analyses. The following type/model/series aircraft are supported by this PU: AH-1W/Z, UH-1N/Y, H-46/E, H-53D/E, H-60H/R/S and V-22. Common helicopter functionality will be developed for implementation in Joint Mission Planning System (JMPS).

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total |
|---|---|---|---|---|---|
| ***Title:*** Product Development | 0.000 | 0.000 | 0.638 | 0.000 | 0.638 |
| ***Articles:*** | - | - | - | - | - |
| ***Description:*** Development of Common Helicopter functionality and integration with JMPS Framework Versions 1.3.x and 64-bit Operating System. Common Components include Common Mission Data Loader (CMDL), Weapon Employment Zone Overlays Tool (WEZOT) and Point Selection Tool (PST). | | | | | |
| ***FY 2015 Accomplishments:***<br>N/A | | | | | |
| ***FY 2016 Plans:***<br>N/A | | | | | |
| ***FY 2017 Base Plans:***<br>Continue the development, test, and integration of Common Mission Data Loader (CMDL), Point Selection Tool (PST), and Weapon Employment Zone Overlays Tool (WEZOT). | | | | | |
| ***FY 2017 OCO Plans:***<br>N/A | | | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 0.638 | 0.000 | 0.638 |

| Exhibit R-2A, RDT&E Project Justification: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2312 / *Common Helicopters* |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Not applicable.

**E. Performance Metrics**

Export Mission Data to Data Transfer Device: Threshold value is < 12 minutes to transfer navigation, communication, weapon system initialization settings and intelligence data. Interoperability: Threshold value is 100% of top level Information Exchange Requirements (IERs) designated critical will be satisfied. Objective value is 100% of top level IERs will be satisfied.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Navy | | | Date: February 2016 |
|---|---|---|---|
| Appropriation/Budget Activity<br>1319 / 5 | R-1 Program Element (Number/Name)<br>PE 0605215N / *(U)Mission Planning* | Project (Number/Name)<br>2312 / *Common Helicopters* | |

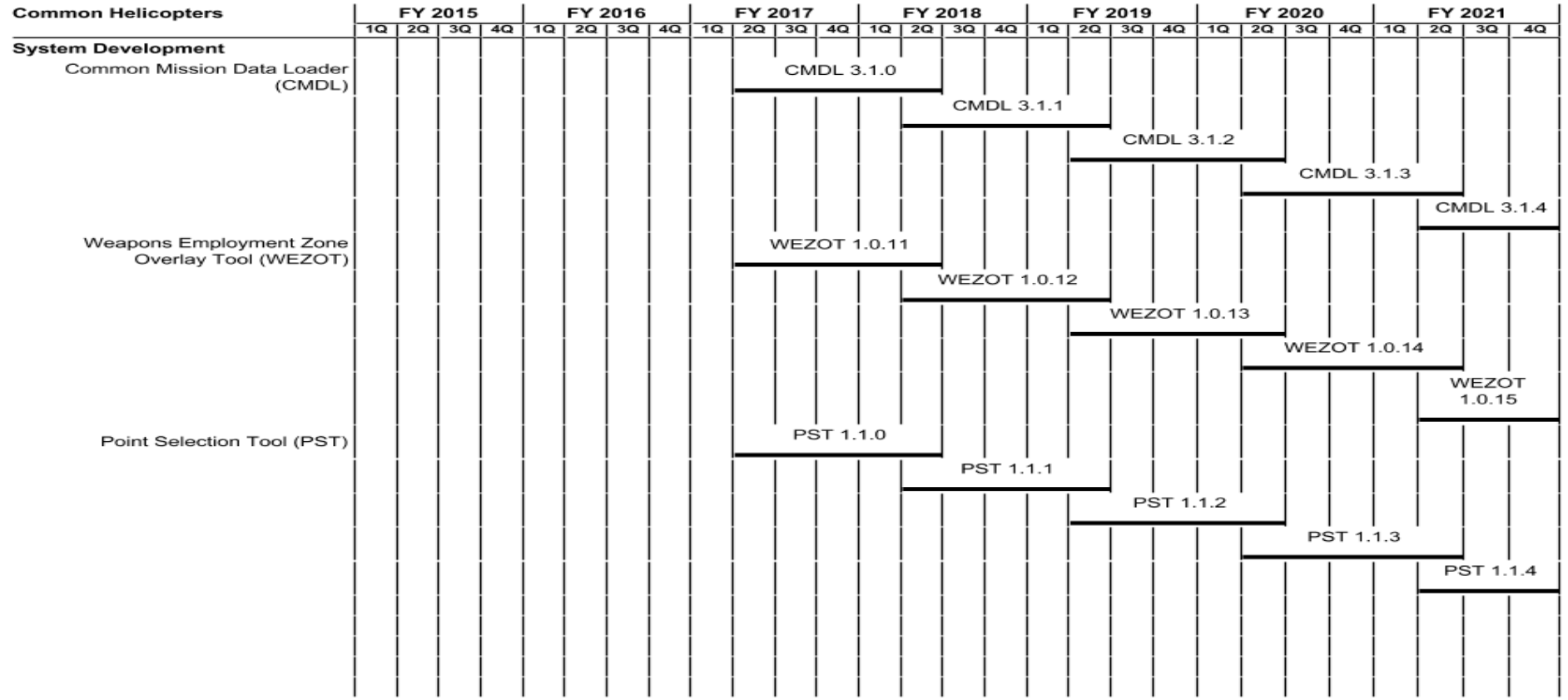
**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | FY 2015 Cost | FY 2015 Award Date | FY 2016 Cost | FY 2016 Award Date | FY 2017 Base Cost | FY 2017 Base Award Date | FY 2017 OCO Cost | FY 2017 OCO Award Date | FY 2017 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary Software Development | C/CPFF | Joint Technology Engineering : Valparaiso, FL | 0.000 | 0.000 | | 0.000 | | 0.638 | Jan 2017 | - | | 0.638 | Continuing | Continuing | Continuing |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.638 | | - | | 0.638 | - | - | - |

| | Prior Years | FY 2015 | | FY 2016 | | FY 2017 Base | | FY 2017 OCO | | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 0.000 | | 0.638 | | - | | 0.638 | - | - | - |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2312 / *Common Helicopters* |




*2017PB - 0605215N - 2312*

| Exhibit R-4A, RDT&E Schedule Details: PB 2017 Navy | | Date: February 2016 |
|---|---|---|
| **Appropriation/Budget Activity**<br>1319 / 5 | **R-1 Program Element (Number/Name)**<br>PE 0605215N / *(U)Mission Planning* | **Project (Number/Name)**<br>2312 / *Common Helicopters* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events by Sub Project** | **Quarter** | **Year** | **Quarter** | **Year** |
| ***Common Helicopters*** | | | | |
| System Development: Common Mission Data Loader (CMDL): CMDL 3.1.0 | 2 | 2017 | 2 | 2018 |
| System Development: Common Mission Data Loader (CMDL): CMDL 3.1.1 | 2 | 2018 | 2 | 2019 |
| System Development: Common Mission Data Loader (CMDL): CMDL 3.1.2 | 2 | 2019 | 2 | 2020 |
| System Development: Common Mission Data Loader (CMDL): CMDL 3.1.3 | 2 | 2020 | 2 | 2021 |
| System Development: Common Mission Data Loader (CMDL): CMDL 3.1.4 | 2 | 2021 | 4 | 2021 |
| System Development: Weapons Employment Zone Overlay Tool (WEZOT): WEZOT 1.0.11 | 2 | 2017 | 2 | 2018 |
| System Development: Weapons Employment Zone Overlay Tool (WEZOT): WEZOT 1.0.12 | 2 | 2018 | 2 | 2019 |
| System Development: Weapons Employment Zone Overlay Tool (WEZOT): WEZOT 1.0.13 | 2 | 2019 | 2 | 2020 |
| System Development: Weapons Employment Zone Overlay Tool (WEZOT): WEZOT 1.0.14 | 2 | 2020 | 2 | 2021 |
| System Development: Weapons Employment Zone Overlay Tool (WEZOT): WEZOT 1.0.15 | 2 | 2021 | 4 | 2021 |
| System Development: Point Selection Tool (PST): PST 1.1.0 | 2 | 2017 | 2 | 2018 |
| System Development: Point Selection Tool (PST): PST 1.1.1 | 2 | 2018 | 2 | 2019 |
| System Development: Point Selection Tool (PST): PST 1.1.2 | 2 | 2019 | 2 | 2020 |
| System Development: Point Selection Tool (PST): PST 1.1.3 | 2 | 2020 | 2 | 2021 |
| System Development: Point Selection Tool (PST): PST 1.1.4 | 2 | 2021 | 4 | 2021 |

THIS PAGE INTENTIONALLY LEFT BLANK